CLAIMS

What is claimed is:

1. A method for producing a desired virus and/or desired viral proteins other than adenovirus or adenoviral proteins for use as a vaccine, said method comprising:

providing a cell with at least a sequence encoding at least one gene product of an adenoviral E1 gene or a functional derivative of said adenoviral E1 gene,

providing said cell with a nucleic acid sequence encoding said desired virus and/or said desired viral proteins,

culturing said cell in a suitable medium and allowing for expression of said desired virus and/or said desired viral proteins, and

harvesting said desired virus and/or desired viral proteins from said suitable medium and/or said cell.

2. The method according to claim 1, wherein said cell is a human primary cell.

3. The method according to claim 1 or 2, wherein said cell is immortalized by a gene product of said adenoviral E1 gene.

4. The method according to any one of claims 1-3, wherein said cell is derived from a human embryonic retinoblast.

5. The method according to any one of claims 1-4, wherein the sequence encoding at least one gene product of the adenoviral E1 gene is present in the genome of said human cell.

6. The method according to any one of claims 1-5, wherein said cell does not produce adenoviral structural proteins.

7. The method according to any one of the preceding claims, wherein said cell further comprises a sequence encoding adenoviral E2A or a functional derivative or analogue or fragment thereof.

8. The method according to any one of the preceding claims wherein said sequence encoding E2A or a functional derivative or analogue or fragment thereof is present in the genome of said human cell.

9. The method according to claim 7 or claim 8, wherein said adenoviral E2A encoding sequence encodes a temperature sensitive mutant E2A.

10. The method according to any one of the preceding claims, wherein said cell comprises no other adenoviral sequences.

11. The method according to any one of the preceding claims, wherein said cell is capable of growing in suspension.

12. The method according to any one of the preceding claims wherein said cell is cultured in the absence of serum.

13. The method according to any one of the preceding claims wherein said cell is PER.C6 as deposited under ECACC no. 96022940 or a derivative thereof.

14. The method according to any one of claims 1-13, wherein said desired virus and/or said desired viral proteins comprise a protein that undergoes post-translational, peri-translational, or both peri-translational and post-translational modifications.

15. The method according to claim 14 wherein said modifications include glycosylation.

16. The method according to any one of the preceding claims wherein said desired viral proteins comprise at least one of an influenza virus neuraminidase and/or a hemagglutinin.

17. The method according to any one of claims 1-16, wherein said virus is selected from the group consisting of enterovirus, rhinovirus, aphtovirus, and poliomyelitis virus.

18. The method according to any one of claims 1-16, wherein said virus is selected from herpesvirus, herpes simplex virus, pseudorabies virus, and bovine herpes virus.

19. The method according to any one of claims 1-16, wherein said virus is selected from the group consisting of orthomyxovirus, influenza virus, paramyxovirus, Newcastle Disease virus, respiratory syncitio virus, mumps virus, and measles virus.

20. The method according to any one of claims 1-16, wherein said virus is selected from the group consisting of retrovirus, human immunodeficiency virus, parvovirus, and papovavirus.

21. The method according to any one of claims 1-16, wherein said virus is selected from the group consisting of rotavirus, coronavirus, transmissible gastroenteritis virus, flavivirus, tick-borne encephalitis virus, and yellow fever virus.

22. The method according to any one of claims 1-16, wherein said virus is selected from the group consisting of togavirus, rubella virus, and Eastern-, Western-, or Venezuelean Equine Encephalomyelitis virus.

23. The method according to any one of claims 1-16, wherein said virus is selected from the group consisting of a hepatitis causing virus, hepatitis A virus, and hepatitis B virus.

24. The method according to any one of claims 1-16, wherein said virus is selected from the group consisting of pestivirus, hog cholera virus, rhabdovirus, and rabies virus.

25. A method according to any one of claims 1-16, wherein said virus is a Bunyaviridae virus or Hantavirus.

26. Use of a human cell having a sequence encoding at least one adenoviral E1 protein or a functional derivative, homologue or fragment thereof in the human cell's genome which human cell does not produce structural adenoviral proteins for the production of a virus or at least one viral protein for use in a vaccine.

27. Use according to claim 26, wherein said human cell is derived from a primary cell.

28. Use according to claim 26 or 27, wherein said human cell is a PER.C6 cell or a derivative thereof.

29. Use according to claim 26-28, wherein said cell further comprises a sequence encoding adenoviral E2A or a functional derivative or analogue or fragment thereof in its genome.

30. Use according to claim 29, wherein said adenoviral E2A is temperature sensitive.

31. A virus or a viral protein for use in a vaccine obtainable by a method according to any one of claims 1-25 or by a use according to any one of claims 26-30, said virus or said viral protein being free of any non-human mammalian proteinaceous material.

32. A human cell having a sequence encoding at least one E1 protein of an adenovirus or a functional derivative, homologue or fragment thereof in its genome, which cell does not produce structural adenoviral proteins and having a nucleic acid encoding a virus or at least one non-adenoviral viral protein.

33. The human cell of claim 32 which is derived from PER.C6 as deposited under ECACC no. 96022940.

34. The human cell of claim 32-33, further comprising, in the human cell's genome, a sequence encoding adenoviral E2A or a functional derivative or analogue or fragment thereof.

35. The human cell of claim 34, wherein said adenoviral E2A is temperature sensitive.

36. A kit for determining activity of a protease in a sample, said kit comprising:

at least one viral protein or virus obtainable by a method according to any one of claims 1-25 or by a use according to any one of claims 26-30.

37. Use of a viral protein or a virus obtainable by a method according to any one of claims 1-25 or by a use according to any one of claims 26-30 for determining protease activity in a sample.

38. The kit of claim 36 or the use according to ~~claim 37, wherein~~ said protease comprises trypsin.

39. The kit according to claim 36 or The use according to claim 37, wherein said sample comprises culture medium.

40. A method for concentrating influenza virus under conditions capable of at least in part preserving virus infectivity, said method comprising:

obtaining a cell cleared supernatant comprising said virus from a culture of cells, and ultrafiltrating said supernatant under low shear conditions.

41. The method according to claim 40, wherein said low shear conditions are obtained with a hollow fiber.

42. The method according to claim 40 or claim 41, wherein said culture of cells comprise *in vitro* cultured cells.

43. The method according to any one of claims 40-42, wherein said ultrafiltration is performed with filter comprising a cut off of 750 KD.

44. The method according to any one of claims 40-43, wherein said concentration further comprises at least a partial removal of proteins comprising a molecular weight smaller than 750 KD.

45. Infectious influenza virus or derivatives thereof concentrated with a method according to any one of claims 40-44.